

REMARKS

Claim 3 and claim 5 have been cancelled and the content incorporated into claim 1. Claims 9, 10, 16-21 remain withdrawn from consideration. The Applicant respectfully requests favorable reconsideration of the application in view of the above amendments and the following remarks.

The applicant gratefully acknowledges that in paragraph 1 of the Office action the Examiner states that, claims 13-15 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, it is respectfully urged that the applicant is entitled to broader claim protection for the subject invention in view of the above amendments and following remarks.

In paragraph 2 of the Office Action, claims 1, 6, and 22 stand rejected under 35 U.S.C. 102 (e) as being anticipated by Nakano et al.(6,919,109). The Examiner states that Nakano discloses a porous image recording element comprising a support and an image receiving layer which may comprise colloidal silica, hydrophilic binder, which may be polyvinyl alcohol, and fluorosurfactant (see col. 6, lines 37-47, col. 12, lines 28-44, col. 18, line 32-36, col. 20, lines 10-14). Binder is stated to be present at 9 to 40% by mass of the coloring agent accepting layer (col. 12, lines 64-67). The Examiner states that, the reference is concerned with both gloss and ink absorbing speed and has measurements within the instantly claimed ranges (see col. 29, lines 30-45 and Table 2). This rejection is respectfully traversed.

The independent claim has been limited to a binder present in an amount of between 2% and 15% by weight of image-receiving layer; an image-recording element with a 60-degree gloss of greater than 25, and a dry time of less than 1 minute; anionic colloidal silica particles with a median diameter between 80 and 200 nm; and at least 80% of the anionic colloidal silica particles have a diameter of within 35% smaller or larger than the median diameter of the anionic colloidal silica particles. Nakano (col. 6, lines 37-47) teaches that the preferred silica particles are dry process particles. The instant invention discloses wet phase particles as the preferred silica particle. Further, the wet phase particles are larger than the dry phase particles and the instant invention specifies a narrow size

distribution. Nakano (col. 7, lines 62-64) discloses a preferred colloidal silica particle diameter of 50 nm or less. The diameter range of the instant invention is greater than the diameter disclosed by Nakano. The instant invention selects a non-preferred silica particle with a particle size range which is not disclosed in Nakano. Therefore, it is respectfully requested that the 35 U.S.C. 102 (e) rejection as being anticipated by Nakano be reconsidered and withdrawn.

In paragraph 3 of the Office Action, claims 1-8, 11, 12, 22-29 and 34 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over Nakano et al. (6,919,109). The Examiner states that, along with the disclosures set forth above, the primary reference also discloses the following: A water dispersible latex may be included in amounts of 0.1 to 30% by mass (see col.8, lines 19-21, col.11, lines 16-19). The particles have a preferred diameter of 50 nm or less. Further cross-linking agent may be present, including boron compounds and glyoxal (see col.14, lines 6-41). The Examiner states that, the image receiving layer may be applied at pH of 8 or higher (see col. 15, lines 4-21). The Examiner states that, the amount of cross-linking agent is 1 to 50% by mass (col. 15, lines 22-24). The surfactant is present in amounts of 0.001 to 2.0% (see col. 19, lines 44-46). The Examiner points out that, the support may be paper or plastic (see col. 20, lines 11-17). This rejection has been respectfully traversed.

The independent claim has been limited to anionic colloidal silica particles with a median diameter of between 80 and 200 nm. Nakano (col. 7, lines 62-64) discloses a preferred colloidal silica particle diameter of 50 nm or less. The diameter range of the instant invention is greater than the diameter disclosed by Nakano. Therefore, the diameter range of the instant invention does not fall within the scope of the diameter range disclosed in Nakano. Further Table VII on page 30 in the specification of the present application demonstrates that the particle size and narrow size distribution were selected to provide the advantages of higher gloss, faster dry time, good image quality, and improved coating quality. There is no teaching or suggestion to modify Nakano to reach the instant invention. Therefore, it is respectfully requested that the 35 U.S.C. 103 (a) rejection as being unpatentable over Nakano is reconsidered and withdrawn.

In paragraph 4 of the Office Action, claims 1-8, 11, 12, and 22-34 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over Nakano et al. (6,919,109) in view of Niu et al. (6,689,433) for reasons of record and for reasons

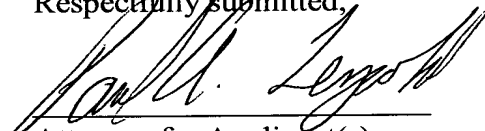
given below. The Examiner states that, Niu et al. teaches a print made media comprising a support having at least one ink receiving layer thereon. Further the ink receiving layer includes a binder blend and one or more pigments (see the abstract). The Examiner states that, the reference discusses the importance of drying times col. 1, lines 20-24 and of gloss at col. 1, line 67 to col.2, line 8, and specular gloss at col. 29, lines 46-56. Further the Examiner states that, the support may be porous or non-porous (see col. 8, line 34-57). An absorbing layer may be present between the support and the ink receiving layer (see col. 9, lines 4-28). An ink receiving layer 30 is applied to the support (see col. 10, line 63 to Col. 11, line 2). The Examiner states that, the layer includes multiple binders including latex binders and polyvinyl alcohol (see col. 15, line 49-col.16, line 38, col. 17, lines 40-58). Polyvinyl alcohol may be present and have a degree of hydrolysis within the range instantly claimed (see col. 18, line 18 to col. 19, line 34). Colloidal silica may be included. It does not have to be treated and since silica is inherently anionic, the silica will be anionic. Further while no size range set forth, a size range of 300 to 400 nm is disclosed (see col. 21, lines 36-65). The Examiner points out that, it would have been obvious to one of ordinary skill in the art to use smaller and relatively uniformly sized particles in order to form a glossy surface. This rejection has been respectfully traversed.

The independent claim has been limited to anionic colloidal silica particles with a median diameter of between 80 and 200 nm. Niu et al. (US 6,689,433) discloses a print media with properties very different from the properties described and claimed in the application. Claim 1 of the instant invention recites an element having a dry time of less than 1 minute. In contrast, in column 29, lines 51-52, the reference teaches a longer dry time of 1 to 2 minutes. Further the longer dry time is to be expected from the high level of binder taught by the reference (55-100% by weight) at column 20, lines 23-29. In contrast, the instant application describes "a hydrophilic binder in an amount insufficient to substantially alter the porosity of the porous ink-receiving layer" and the claims recite that the binder is present in an amount of between 2-15% by weight of the of the image receiving layer. Niu (col. 21, lines 36-65) discloses a preferred silica particle size of 300 to 400 nm. The instant invention discloses a silica particle range from 80 to 200nm. The particle size of the instant invention is smaller than the preferred particle size of Niu. Therefore, the size range of the invention does

not fall within the size range disclosed in Niu. Further Table VII on page 30 in the specification of the present application demonstrates that the particle size and narrow size distribution were selected to provide the advantages of higher gloss, faster dry time, good image quality, and improved coating quality. There is no disclosure or suggestion in any combination of Niu et al. and Nakano that would lead one to the instantly claimed invention. There is no teaching in Niu et al. that would lead one to modify Nakano et al. to reach the invention. Therefore, it is respectfully requested that the 35 U.S.C. 103 (a) rejection as being unpatentable over Nakano et al. (6,919,109) in view of Niu et al. (6,689,433) be reconsidered and withdrawn.

Therefore, the Applicant respectfully urges the Examiner to reconsider and withdraw the rejections under 35 U.S.C. 102(e) and 35 U.S.C. 103 (a) and issue a Notice of Allowance.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Paul A. Leipold", is written over a horizontal line.

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